DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 1x.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-014686
Date Inspected: 07-Jun-2010

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: American Bridge/Fluor Enterprises, a JV

OSM Arrival Time: 700
OSM Departure Time: 1100
Location: Job Site

CWI Name: Steve McConnell

Inspected CWI report:	☐ Yes	☐ No	☑ N/A	**CWI Present:**	☑ Yes	☐ No	
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☐ Yes	☐ No	☑ N/A
				Approved WPS:	☑ Yes	☐ No	☐ N/A
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A

Bridge No: 34-0006
Component: OBG Sections

Summary of Items Observed:

This Quality Assurance (QA) Inspector, Craig Hager was on site at the job site between the times noted above. This QA Inspector was on site to randomly observe Quality Control (QC) personnel perform Non-Destructive Testing (NDT) and to monitor American Bridge/Fluor (ABF) welding operations.

The following observations were made:

1) At weld joint E5/E6 – A1 thru A5: ABF welding personnel Fred Kaddu (#2188) and Mitch Sittinger (#0315) were performing repair welding using the Shield Metal Arc Welding (SMAW) process with QC Inspector Steve McConnell present.

2) At weld joint W1/W2- C2: ABF welding personnel James Zhen (#6001) and Chun Fai Tsui (#3426) were in the process of excavating weld repairs with QC Inspector Bonifacio Daquinag Jr. present.

3) At weld joint W4/W5- D1and W4/W5-C2 this QA Inspector observed work in process for the fit up of weld joints currently consisting of a 5 mm gap between the backing strap at D1 and 7mm plainer offset at C2.

At weld joint E5/E6 – A1 thru A5 this QA Inspector randomly observed ABF welding personnel Fred Kaddu (#2188) and Mitch Sittinger (#0315) performing SMAW at various weld repair excavations. This QA Inspector observed QC Inspector Steve McConnell was present and monitoring the welding. This QA Inspector performed a verification of the welding parameters for Fred Kaddu (#2188) and observed the following: 142 amperes using a 3. 2 mm E7018 electrode in the flat (1G) position. This QA Inspector performed a verification of the welding

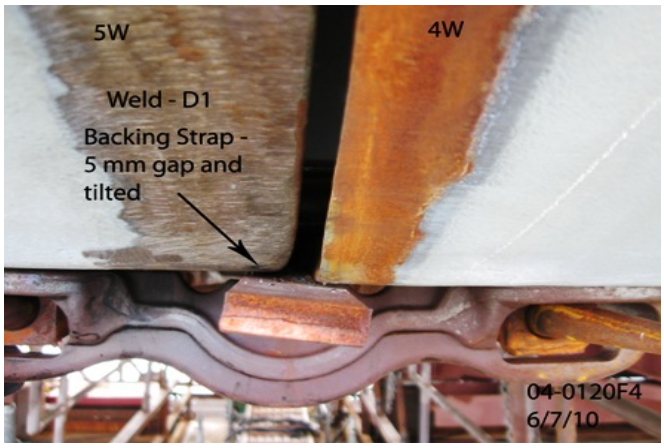
parameters for Mitch Sittinger (#0315) and observed the following: 140 amperes using a 3.2 mm E7018 electrode in the flat (1G) position. The welding observed appeared to be in accordance with Welding Procedure Specification (WPS) ABF-WPS-D15-1001-Repair.

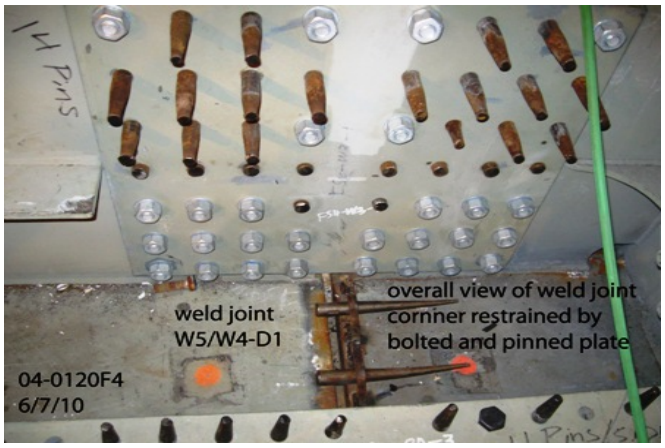
At weld joint W1/W2- C2 this QA Inspector observed QC Inspector Bonifacio Daquinag Jr. and Tony Sherwood measuring and verifying the locations of weld defects using the Ultrasonic Inspection Test report generated for this weld. The QC Inspectors were working with ABF welding personnel James Zhen (#6001) and Chun Fai Tsui (#3426) to determine which side of weld would be excavated to facilitate repair welding (inside or outside). This QA Inspector observed ABF welding personnel Chun Fai Tsui (#3426) excavate a repair area from the outside surface adjacent to bottom plate "D" which was approximately 110 mm in length, 20 mm wide and 14 mm deep. No welding was observed during this QA Inspector's shift.

This QA Inspector observed the work in process for the fit up of weld joint W4/W5- D1. This QA Inspector observed that work had not been started on adjacent weld joint W4/W5-C2. From outside the Orthotropic Box Birder (OBG) this QA Inspector observed the backing strap at the beginning of D1 appeared to be tilted, see photo below. This QA Inspector went inside the OBG, measured the plainer offset and examined the fit up of the backing strap from the inside. The plainer offset between the two OBG sections appeared to be approximately 2mm, this QA Inspector observed there was a gap between the bottom of the plate (OBG section W5) and the backing strap which was approximately 5mm. See photo below of 3.2 mm diameter electrode between the plate and the backing strap. The plainer offset between W4 and W5 on the outside of the OBG adjacent to D1 at the end of C2 was measured to be approximately 7 mm. Please note the splice plate directly above this section of weld is bolted and pinned, see overall inside photo below. QC Inspector Jesse Cayabyab was present and informed this QA Inspector he was aware of the offsets and gap.

Summary of Conversations:

As noted above.





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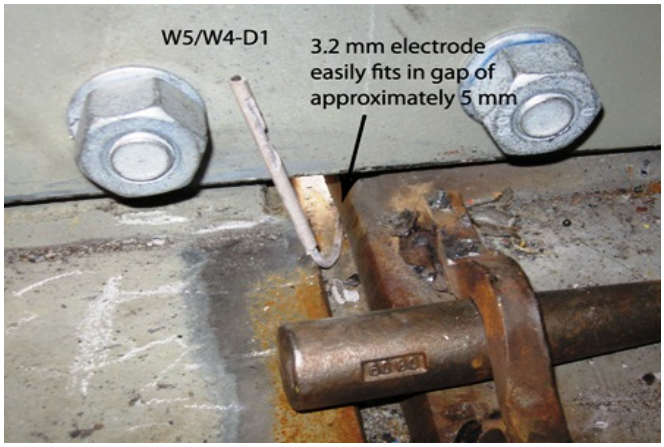

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mohammad Fatemi (916) 813-3677, who represents the Office of Structural Materials for your project.

Inspected By:	Hager,Craig	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer